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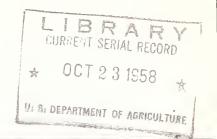
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UPPER DESCHUTES RIVER and CROOKED RIVER WATERSHEDS

WATER SUPPLY OUTLOOK

as of APRIL 1, 1957

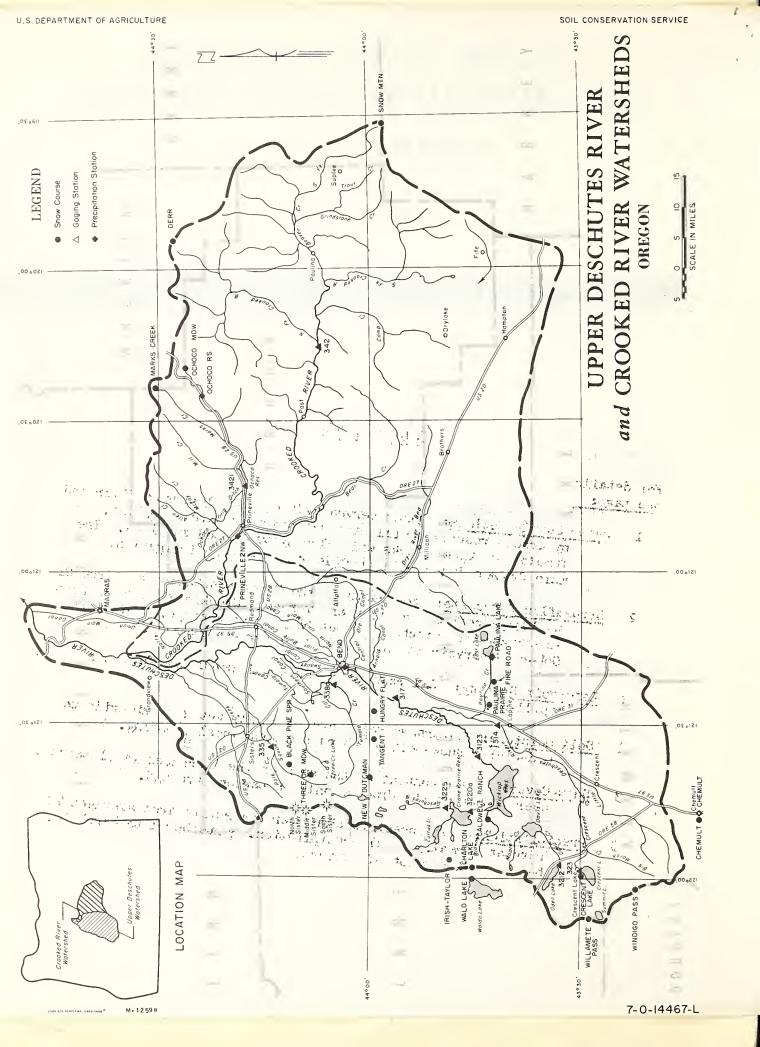


U.S. SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT

SUMMARY

For details see page:

- Water Supply Outlook: Lands served by the Upper Deschutes River and 1 by Ochoco reservoir will have satisfactory water supplies. Tumalo and Squaw Creeks will also provide good supplies. The main Crooked River will provide only one good irrigation.
- 2 Streamflow Forecasts: Forecasts on the Upper Deschutes vary from 81 to 103 percent of the 15 year average. Crooked River near Post is expected to discharge about 64 percent average. Inflow to Ochoco Reservoir is estimated at 61 percent average.
- 2 Reservoir Storage: All reservoirs and stock ponds are full and spilling.
- 2 Soil Moisture: Watershed soils are extremely wet due primarily to mid-winter snow-melt which caused some local flooding.
- 3 Snow-Cover: Water content of the snow on the Deschutes is 81 percent average but on the Crooked only 78 percent average,
- 3 Precipitation: Fall precipitation over the entire area averaged 78 percent normal. Total precipitation, September 1 to March 30, has been 94 percent of average.



WATER SUPPLY OUTLOOK For April-September, 1957^a

**	Acrea	
Source of Water	Irriga	ted Outlook
Upper Deschutes River Basin		
Crescent Lake	500	Adequate water for usual irrigation is assured for Walker Basin system and the Tumalo Project.
Deschutes River	4,234	Swalley Ditch (Deschutes Reclamation and Irrigation Company) is assured an ample water supply.
Deschutes plus Crane Prairie Reservoir	46,500	Arnold and Central Oregon Irrigation Districts will have adequate supplies this season.
Deschutes plus Crescent Lake plus Tumalo Reservoir	6,830	Tumalo Project (Deschutes County Municipal Improvement District) will have an adequate water supply
Deschutes plus Wickiup Reservoir	50,000	An adequate supply for the North Unit Irrigation District.
Three Creeks Lake	550	Adequate for Snow Creek diversion.
Squaw Creek	9,800	Satisfactory except for late- season rights which will run short early in season. Plainview- McAllister Ditch probably cut off by mid-July.
Squaw and Pole Creeks	1,350	Satisfactory water supplies for the former Sisters Irrigation District.
crooked River Basin		, ,
Bear Creek	2,500	Poor water supply with early shortages. Low elevation snow all gone.
Crooked River	35,000	Poor water supply because snow- cover is mostly gone already. Good summer rains can improve this outlook appreciably.
Ochoco and McKay Creeks	8,500.	Satisfactory supply for Ochoco Irrigation District. Lands above reservoir have a fair outlook but will need summer rains.

a - Assuming normal meteorological conditions during the April - September period.

STREAMFIOW FORECASTS^a As of April 1, 1957

	Gaging Station	Seasonal	Streamflow i	n 1000 a.f	
	.44.	Forecast	Forecast	15-Yr.	as % of
	••	1957	Period	Avg	15-Yr.
No.	Name	•		1938-52	Avg
		_	155	ri Eg uj	
323	Crescent Cr. at Crescent Lk.*	21.0	AprSept.	21.2	99
314	L. Deschutes R., nr. Lapine*	73.0	AprSept.	89.6	81
314	L. Deschutes R., nr. Lapine*	65.0	AprJuly	79.1	82
3212	Odell Cr. Nr. Crescent	30.0	AprSept.	29.2	103
3225	Deschutes R., below Snow Cr.	55.0	AprSept.	60.4	91
3220a	Crane Prairie Res., net inflow	108.0	AprSept.	120.6	90
317	Deschutes R., at Benham Falls*	485.0	AprSept.	511.0	95
317	Deschutes R., at Benham Falls*	330.0	AprJuly	346.3	95
338a	Tumalo Cr., nr. Bend*	42.0	AprSept.	48.3	87
3421	Ochoco R., net inflow	17.0	AprSept.		61
335	Squaw Cr., nr. Sisters	45.0	AprSept.	49.3	91
342	Crooked R., nr. Post	80.0	AprSept.		64
	* Corrected to natural flow	· 1938-	39 excepted		

RESERVOIR STORAGE

	Friends and a second		4	The Column by Only on the Column by Only							
	Usable	Thous	and a.f.	in storage	rage about April 1, 195						
Reservoir	Capacity 1000 a.f.	1957	1956	1955	15-Yr. Avg. 1938-52	1957 as % of 15-Yr. Avg.					
Ochoco Crescent Lake Crane Prairie Wickiup	46.0 68.0 55.3 200.0	44.7 68.1 58.7 200.4	41.7 52.9 43.4 199.8	23.2 23.1* 49.0 194.2	28.3 42.1 38.4 112.3	158 162 153 178					
Total (4 Reservoirs) * Construc	369.3	371.9	337•8 °1938 - 42	289.5 excepted.	221.1	168					

SOIL MOISTURE

Soils In:	Fall Status	 Current status as of April 1, 1957					
Lower Valleys	((
Upper Valleys		 ((Excellent (
Mountains	(,					

SNOW COVER
As of April 1, 1957

	Snow Co			957		Water Content (In.)				
No.	Name	Elev.	Snow Depth (In.)	Water Content (In.)		1955	15-Yr. Avg. 1938-52	% of 15- Yr. Avg.		
Upper	Deschutes River B	asin								
	Below 5000*									
21E11	Black Pine Spg.	4600	6	2.7		7.2	esp. esp.			
	Caldwell Ranch	4400	19	6.0	17.1	7.9	8.4**	71		
22F3		4880	69	29.2	49.5	32.1	32.2	91		
	Chemult	4760	8	2.9	17.0	4.9	9.6**	30		
21F9		4760	15	6.7	22.8	13.2	10.0	67		
21F4	Hungry Flat	7400	0	0.0	11.5	5.6				
211-15	Paulina Prairie	4285	0	0.0	1.1	T				
-	Average*			11.2	26.6	14.5	15.1	74		
	above 5000!									
21F7	Charlton Lake	5750	75	24.1	46.2	31.4	27 . 8**	87		
	Fire Road	5050	9	4.0	13.2	6.2	**			
21F6	Irish-Taylor	5500	108	35.5	58.4	37.9	***			
21F2	New Dutchman Flat	•	111	45.1	72.4	43.7	53.1**	85		
	Paulina Lake	6330	57	21.5	28.6	14.1				
21F3	Tangent	5400	36	14.1	34.3	16.6				
21E13		5600	30	11.9		19.6	20.9	57		
22F2	Waldo Lake	5500	83	26.6		30.9	29.3**	91		
212.77	Willamette Pass	5600	96	37.0	63.2	38.4	شدوست د اسار	_•		
42835	Windigo Pass	580 0	104	40.8	68.6	37.7	<u>55.3</u> **	<u>74</u> 80		
A	Average*			29.7	53.4	32.6	37.3	80		
AV e.	rage* (9 Snow Cours	es)	400 400	21.4	41.5	24.6	27.4	78		
Crook	ed River Basin									
19E3	Derr	5670	2).	Ω 7	22.2	0 1	10.2	70		
20E1	Marks Creek	4540	24 1.5	8.1	11.3	9.1	10.3	79		
20E2	Ochoco Mdws.	5200	22	0.5 8.2	2.1	2.8 8.5	3.3 11.3	45		
19F1	Snow Mountain	6300		14.5	13.8	11.6	15.1**	73 <u>96</u>		
	Average (4 Snow Co		 41	7.8	9.6	8.0	10.0	20 78		
	**Average for less			of record	7.0	938-52				
de la marca d	5 years. #Only sn	0.1011 T	yours	AT 1 COOL	A 444 A	عر-ايور	Porroa ouo i	100 1000		

PRECIPITATION DATA 1956-57

Station			P	recip:	itati	on (i	nches)			Avg. a	as %
Name	Elev.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Avg. N	ormal*		mal
Bend	3599	.05	2.24	.31	•79	•77	1.68	1.68	1.07	1.28	84	
Chemult	4760	•57	3.90	.90	2.68	3.61	3.09			3.01	89	
Madras	2300	.00	1.16	.00	.22			2.32	.72	.88	82	
Ochoco RS	3979	.05	3.28	. 98	1.32	1.82	1.89	3.49	1.83	1.70	108	
Prineville 2NW	2868	•09	1.29	.36	.52	.81		2.85	. 93	.83	112	
Average		.15	2.37	.51	1.11	1.50		2.87	1.45	1.54	94	
Avg. Normal*		• 72	1.07	2.11	2.10	1.84	1.72	1.22				
Avg. as % of		21	221	24	53	82	94	235				
Fall Avg. as	% of Fal	1										
Normal (Sept-	Oct-Nov)	7	8'									

*Based on USWB data e estimated

